



Dutch Hollow Lake EWM Removal Report 2022

PO Box 1134 Minocqua, WI 54548



Dutch Hollow Lake EWM Removal Summary 2022

Dive Background: Between July 18th and July 27th, Aquatic Plant Management LLC (APM) conducted seven (7) days of Diver Assisted Suction Harvesting (DASH) for Eurasian Watermilfoil (EWM) on Dutch Hollow Lake in Sauk County, WI. The team focused their efforts at 8 main sites prioritized by the Friends of Dutch Hollow, Inc. In total APM was able to remove **700.0 cubic feet of EWM** from Dutch Hollow Lake.

Date	Weather Conditions	Water Temp (F)	Underwater Dive Time (hrs)	AIS Removed (cubic ft)
7/18/2022	Sunny	75	6.2	99.0
7/19/2022	Sunny	76	4.9	114.0
7/20/2022	Sunny	76	4.7	111.0
7/21/2022	Partly Cloudy	78	7.2	120.0
7/22/2022	Sunny	76	5.1	111.0
7/26/2022	Partly Cloudy	77	5.2	55.0
7/27/2022	Sunny	76	5.7	90.0
Grand Total			38.9	700.0

Dive Location	Avg. Water Depth	# of Dives	Underwater Dive Time	AIS Removed (cubic feet)
AA21	6.0	1	1.0	15.0
B21	4.0	3	3.2	75.0
BB21	5.1	7	8.3	100.0
C21	6.0	5	4.4	81.0
D21	6.0	5	5.6	102.0
EE21	6.7	10	14.8	297.0
V21	5.0	1	0.7	12.0
Z21	6.0	1	0.9	18.0
Grand Total	5.8	33	38.9	700.0

Dive Highlights and Recommendations: The DASH team spent about one third of their time and the biomass removed from site EE21 represented 40% of the total amount of EWM harvested from the lake. Other sites that received significant attention due to the EWM density was black forest bay (BB21) and the bay near the Dutch Hollow Association Clubhouse. Overall, Dutch Hollow Lake should continue to take an Integrated Pest Management (IPM) approach and evaluate different strategies to manage the EWM population on the lake. Continued monitoring and management efforts are important to prevent the spread of EWM throughout Dutch Hollow Lake.



Map of Dutch Hollow Lake Dive Sites





Detailed Diving Activities (1 of 2)

Date	Dive Location	Latitude	Longitude	Underwater Dive Time (hrs)	AIS Removed (cubic ft)	AIS Density	Avg Water Depth (ft)	Native Species	Native By-Catch	Substrate Type
7/18/2022	C21	43.60795	-90.18193	0.92	9.0	Small Plant Colony	6.0	Pondweeds	0.5	Organic
7/18/2022	C21	43.60795	-90.18193	0.83	6.0	Small Plant Colony	6.0	Pondweeds	0.5	Organic
7/18/2022	C21	43.60777	-90.18166	1.42	24.0	Small Plant Colony	6.0	Pondweeds	2.0	Organic
7/18/2022	C21	43.60777	-90.18166	0.42	27.0	Small Plant Colony	6.0	Pondweeds	2.0	Organic
7/18/2022	C21	43.60756	-90.18144	0.83	15.0	Small Plant Colony	6.0	Pondweeds	2.0	Organic
7/18/2022	D21	43.60742	-90.18124	1.75	18.0	Small Plant Colony	6.0	Pondweeds	1.0	Organic
7/19/2022	D21	43.60719	-90.18087	2.08	36.0	Small Plant Colony	6.0	Pondweeds	2.0	Organic
7/19/2022	D21	43.60712	-90.18089	0.92	21.0	Small Plant Colony	6.0	Pondweeds	1.0	Organic
7/19/2022	D21	43.60712	-90.18089	0.50	15.0	Small Plant Colony	6.0	Pondweeds	1.0	Organic
7/19/2022	D21	43.60686	-90.18062	0.33	12.0	Small Plant Colony	6.0	Pondweeds	0.5	Organic
7/19/2022	B21	43.60834	-90.18263	1.08	30.0	Small Plant Colony	4.0	Pondweeds	0.5	Organic
7/20/2022	B21	43.60831	-90.18242	0.58	9.0	Surface Matting	4.0	Grasses	1.0	Organic
7/20/2022	B21	43.60825	-90.18250	1.58	36.0	Surface Matting	4.0	Grasses	1.0	Organic
7/20/2022	EE21	43.60228	-90.19308	1.92	53.0	Surface Matting	8.5	Grasses	1.5	Organic
7/20/2022	EE21	43.60239	-90.19297	0.58	13.0	Surface Matting	8.0	Grasses	1.0	Organic
7/21/2022	EE21	43.60244	-90.19295	2.00	12.0	Surface Matting	9.0	Grasses	0.5	Clay
7/21/2022	EE21	43.60256	-90.19284	2.33	42.0	Surface Matting	9.0	Grasses	0.5	Clay
7/21/2022	EE21	43.60254	-90.19280	1.00	18.0	Dominant	6.0	Grasses	1.0	Clay
7/21/2022	EE21	43.60251	-90.19285	1.83	48.0	Dominant	6.0	Grasses	1.0	Clay
Total	19			22.90	444.0					



Detailed Diving Activities (2 of 2)

Date	Dive Location	Latitude	Longitude	Underwater Dive Time (hrs)	AIS Removed (cubic ft)	AIS Density	Avg Water Depth (ft)	Native Species	Native By-Catch	Substrate Type
7/22/2022	EE21	43.60254	-90.19288	2.50	39.0	Scattered	4.0	Grasses	2.0	Organic
7/22/2022	EE21	43.60254	-90.19288	1.17	24.0	Scattered	4.0	Grasses	1.0	Organic
7/22/2022	EE21	43.60242	-90.19300	0.50	27.0	Dominant	6.0	None	0.0	Organic
7/22/2022	EE21	43.60200	-90.19315	0.92	21.0	Dominant	6.0	None	0.0	Organic
7/26/2022	BB21	43.59759	-90.19865	0.33	3.0	Single or Few	5.0	Grasses	2.5	Organic/Sand
7/26/2022	BB21	43.59753	-90.19870	0.58	3.0	Single or Few	5.0	Grasses	2.5	Organic/Sand
7/26/2022	BB21	43.59748	-90.19876	0.50	3.0	Single or Few	5.0	Grasses	2.5	Organic/Sand
7/26/2022	BB21	43.59736	-90.19890	1.00	10.0	Single or Few	5.0	Grasses	8.5	Organic/Sand
7/26/2022	BB21	43.59738	-90.19894	1.83	21.0	Single or Few	5.0	Pondweeds	9.0	Organic/Sand
7/26/2022	BB21	43.59725	-90.19901	1.00	15.0	Single or Few	5.0	Pondweeds	9.0	Organic/Sand
7/27/2022	BB21	43.59726	-90.19896	3.08	45.0	Highly Scattered	6.0	Grasses	9.0	Organic
7/27/2022	Z21	43.59950	-90.19472	0.92	18.0	Clumps	6.0	Grasses	0.5	Sand
7/27/2022	AA21	43.59940	-90.19497	1.00	15.0	Clumps	6.0	Grasses	0.5	Sand
7/27/2022	V21	43.59543	-90.19029	0.67	12.0	Clumps	5.0	Grasses	0.5	Organic/Sand
Total	14			16.00	256.0					

Before



AFTER



before





ARTEN

BEFORE





After